Amendments to the Specification:

The following amendments reference the paragraphs as numbered in the application as filed, not the application as published.

Please replace application paragraphs [0007] to [0008] with the following amended paragraphs:

[0007] Telecommunication systems where multiple users communicate with a common communication station are well known in the art. Such systems are defined by the specifications for the Third Generation Partnership Project (3GPP). In a 3GPP system, a number of user equipment (UEs) can be camped on a system cell for communication with a Radio Network Controller (RNC) via various channels including an uplink Random Access Channel (RACH). For example, Figure 5 illustrates a typical 3GPP system called a Universal Mobile Telecommunications Systems (UMTS).

[0007a] As shown if Figure 5, a typical UMTS system architecture includes a Core Network (CN) interconnected with a UMTS Terrestrial Radio Access Network (UTRAN) via an interface known as Iu which is defined in detail in the publicly available 3GPP specification documents. The UTRAN is configured to provide wireless telecommunication services to users through so-called User Equipments (UEs) in 3GPP, via a radio interface known as Uu. The UTRAN has base stations, known as Node Bs in 3GPP, which collectively provide for the geographic coverage for wireless communications with UEs. In the UTRAN, groups of one or more Node Bs are connected to a Radio Network Controller (RNC) via an interface known as Iub in 3GPP. The UTRAN may have several groups of Node Bs connected to different RNCs, two are shown in the example depicted in Figure 5. Where more than one RNC is provided in a UTRAN, inter-RNC communication is performed via

an Iur interface having two RNCs in a UTRAN, inter-RNC communication is performed via an Iur interface.

[0008] Wireless communication with UEs in a 3GPP system is conventionally done utilizing the transmission of successive radio frames divided into timeslots as illustrated in Figure 6. The system may be configured with commonly used time slots (CUTSs) such as illustrated in Figure 7, preferably one such time slot for each system frame, which are commonly available to the UEs for Random Access Channel (RACH) transmission. As shown in Figure 7, a typical CUT is configured with a midamble sandwiched between two data portions with a Guard Period (GP) provided for facilitating timing adjustments A UE may attempt a RACH transmission and select a RACH CUTS of a random frame using one of N code identifiers, for example, one of eight midambles. If no other UE transmits in the same slot with the same midamble and if there is sufficient Signal to Noise Ratio (SNR), then the UE's RACH transmission succeeds. If another UE transmits in the same slot with the same midamble, then they both fail. If another UE transmits in the same time slot with a different midamble, then they both succeed provided that they each have sufficient SNR.

Please add the following new paragraphs after application paragraph [0025]:

[0025a] Figure 5 is a schematic diagram of a typical UMTS system in accordance with 3GPP specifications.

[0025b] Figure 6 is a schematic diagram of a typical radio frame format for a UMTS system in accordance with 3GPP specifications.

[0025c] Figure 7 is a schematic diagram of a typical commonly used time slot (CUT) used in the radio frame format of Figure 6.

[0025d] Figure 8 is a schematic illustration of the adjustment of Dynamic Persistence parameter (DP) in accordance with the invention.

Please replace application paragraphs [0028], [0030], [0031], [0038] and [0039] with the following amended paragraphs:

[0028] In a Third Generation Partnership Project (3GPP) system, such as illustrated in Figure 5 and particularly as specified in TS 25.331, the invention is particularly applicable for a Random Access Channel (RACH) operating in Time Division Duplex (TDD) mode. In 3GPP, RACH is an uplink channel by which the UEs communicate to a node B which is controlled by a radio network controller (RNC) via an Iub interface. The node B, Iub and RNC combination can be viewed as a common station with which the UE's communicate, generally identified as the UTRAN as illustrated in Figures 5 and 8. Preferably, computer memory is provided in the RNC to collect the statistics referenced below in conjunction with Figures 1 and 2. As illustrated if Figure 8, the ~~The~~ node B contains processing circuitry 10 to determine whether RACH transmissions pass or fail a cyclic redundancy check (CRC) and the RNC includes processing circuitry 12 which adjusts the various parameters, such as DP and R, based on RACH pass/fail related data stored in the RNC memory as discussed below.

[0030] The UE rate of access to CUTSs and the UE RACH transmission power are controlled by the UEs based upon various parameters. In a 3GPP system, a parameter Dynamic Persistence (DP) is defined and the UE rate of access to CUTSs is a function of DP. Also, a parameter RACH Constant is defined and the UE RACH transmission power is set as a function of RACH Constant. DP (or a DP

level) and RACH Constant (R) are broadcast to the UEs from data provided by the RNC as illustrated at step S1 of Figure 8.

[0031] In the present invention, parameters such as DP and/or RACH Constant are adjusted based upon determining the number of successes and failures of UE RACH transmissions. The Iub permits the transmission of RACH messages, which fail a cyclic redundancy check (CRC). Accordingly, the associated RNC can count both successful and failed RACH transmissions from the UEs. An example of this is schematically illustrated in Figure 8 where at step S2 the RACH transmissions are receive from the UEs in conjunction with step S3 where the processing circuitry 10 determines if the transmission is a success or failure. As explained in detail below, the processing circuitry 12 then adjusts the DP parameter based on the successes and failures, step S4. The adjusted DP is then broadcast to the UEs, step S5 as explained below.

[0038] When the absolute value of the difference between DP and temp dynamic persistence meets or exceeds a threshold T, |DP - temp dynamic persistence| > T, then DP is changed and the changed value is broadcast to the UEs as illustrated at step S5 in Figure 8.

[00039] In 3GPP, TS 25.331, Section 10.3.6.35, Dynamic Persistence is a value in the range from 0 to 1 which is mapped to eight (8) different Dynamic Persistence levels. The threshold T can be set so that there is sufficient change in the DP value to indicate a change in Dynamic Persistence level. The positive and negative DeltaP increments are preferably selected so that a number, for example 10, of increments, either all positive or negative, will cause the threshold T to be met or

exceeded. Thus, this selection will cause a change to DP only after 10 net determinations of "bad" or "good" measurements have been determined. When the threshold T is met or exceeded, preferably the value of temp dynamic persistence is then stored as the value of DP and the new DP (or DP level) is broadcast to the UEs <u>as illustrated at step S5 in Figure 8</u>.

Please replace the Abstract with the following new Abstract: